

# A NEW BLUE ASTRANGIA CORAL (SCLERACTINIA) FROM THE SOUTHWESTERN ATLANTIC

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## RESUMO

*Astrangia* Milne Edwards & Haime, 1848 is a small, poorly known genus of Scleractinia, composed of 15 extant species with circumtropical to temperate distribution. Only two *Astrangia* species from Brazil were described in the early 20<sup>th</sup> century: *Astrangia brasiliensis* Vaughan, 1906 and *Astrangia rathbuni* Vaughan, 1906. The former was synonymized with *A. solitaria* (Lesueur, 1817). *Astrangia solitaria* and *A. rathbuni* are distinct species, and can be separated by their colonial development and corallite size. We describe a new blue *Astrangia* species from the Northeastern Brazilian coast. Specimens were sampled from Bom Jesus dos Passos Island (12°45'S, 38°38'W) and Itaparica Island (12°53'S, 38°41'W), in the Todos-os-Santos Bay (TSB), Bahia State, Brazil. The new species was mostly found on other fouling organisms underneath a pier deck, such as barnacles and oysters. Larger polyps were seen during scuba diving, and specimens were collected with their basibionts. The specimens were treated with a 4% sodium hypochlorite solution to remove all organic fractions. After 24 hours, the skeleton was washed in running water and dried in air. Scanning electron microscopy images of the corallites supported the taxonomic analysis and the description of the new species. The new species is a zooxanthellate, solitary brooding coral and can be promptly recognized in biofouling communities because of its solitary development. With tympanoid to cylindrical shape, the new species presents polyps ranging from discrete blue to brownish at the tip of the tentacles, theca externally white, calice and septa structures blue, septo-costae equally distributed, low and granular; septa exserted, and arranged hexamerally, 4 to 5 septa cycles, S1>S2>S3>S4>S5, S4-S5 poorly developed, columella papillose with well-developed paliform lobes, and fossa moderately deep. Its reproduction mode as a brooder was determined through histological examination, showing embryos in the mesenteries. *Astrangia* sp. nov. has an epibiotic, biofouling behavior, being predominantly observed encrusted on carbonate shells (bivalves and barnacles). One single coral, or groups of two, three, or more individuals can settle on the same basibiont. Only a few coralla were observed growing directly attached to artificial substrates, co-occurring with exotic invertebrates, such as the bryozoan *Triphyllozoon arcuatum* (MacGillivray, 1889), and 'sun corals' of the genus *Tubastraea* Lesson 1830. This is the second *Astrangia* species reported from Brazil, updating the inventory for the entire South Atlantic to five recorded species.

**PALAVRAS-CHAVE:** Biofouling communities, Brazilian coast, taxonomy

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